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A WEEKLY EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(163) Functions of the Stomach in Diabetes Mellitus.

IN continuation of the observations which Rosenstein (*Berlin. klin. Woch.*, 1890, No. 13) and Ganz (*Berichte des Congr. f. innere Med.*, 1890) have recently published on the functions of the stomach in diabetes mellitus, G. Honigmann details (*Deutsche med. Wochenschr.*, No. 43, 1890) the results observed in Riegel's wards at Giessen on seven diabetics since 1886. They were all moderate or slight cases; two died, one of chronic phthisis, the other of acute miliary tuberculosis; the others were discharged improved. The point to which attention was directed was the amount of hydrochloric acid present during digestion. This was investigated by the well-known method of obtaining a portion of the digested food at a fixed time after the meal, and estimating the acid by its reaction with a solution of aniline colouring matter. The summary of their observations shows that the amount of HCl was normal in only one case; that in three there was hyperacidity, in two absolute deficiency of acid, and in one a varying amount. Honigmann thinks the hypersecretion of acid is the consequence of the polyphagia, and not the cause of it. In all these cases the disease was comparatively recent. He does not think that in the cases with diminished secretion there was any evidence of organic disease of the stomach, such as atrophy of the mucosa or gastric catarrh. He found that there was no diminution of the muscular activity of the walls of the stomach; he thinks, in fact, that the stomach worked too quickly, so that the food was discharged into the intestine before it was fully mixed with gastric juice, and, therefore, the food found in the stomach contained a relatively small quantity of hydrochloric acid.

(164) Thomsen's Disease.

IN a case recently under observation, Dr. Hale White (*Guy's Hospital Reports*, vol xlvi) found the mechanical irritability of the ulnar nerve slightly increased, as opposed to the frequent statement that the excitability of the motor nerves to mechanical stimuli is normal or diminished. Myographic tracings of the quickest possible recurring volitional contractions of the digital flexors showed that the first contraction occupied about 4 seconds in reaching its maximum; fully a second then elapsed before relaxation commenced. The next contraction began 6.15 secs. after the commencement of the first, and before the first relaxation was complete. Not until the twenty-fourth did the contractions become regular and rapid—1.3 sec. from commencement of one to that of the next. With momentary kathodal stimulation the rise of the muscle curve occupied 0.09 sec., and the fall 0.5 sec., whereas the curve of a healthy muscle obtained under precisely similar conditions gave 0.06 sec. and 0.15 sec. respectively. A tetanising current proved that the contraction was much longer in reaching its maximum than in health, and the relaxation was also greatly prolonged. The latent period was not appreciably abnormal. Muscle fibres from a forearm flexor measured from $\frac{1}{150}$ to $\frac{1}{300}$ of an inch in width, contrasted with the normal $\frac{1}{350}$ to $\frac{1}{1000}$; the cross striation was indistinct, and the borders of the fibres were irregular. The nuclei of the sarcolemma were more numerous than in health, but vacuolations, as described by Erb, were not seen. Dr. White concludes that the malady is probably a disease of the voluntary muscles. There is no clinical evidence that the nervous system is involved, but, as no complete necropsy has been made, this point must be held undecided.

(165) Virulence of Saliva before the Onset of Rabies.

MM. ROUX and NOCARD (*Concours Médical*, October 18th, 1890) have made experiments with the view of determining whether persons bitten by an animal which shows no signs of rabies at the time of the bite, but "goes mad" three or four days afterwards, are in danger of developing hydrophobia. They point out that the onset of rabies in dogs, for instance, is not sudden; there are premonitory symptoms which generally do not excite attention. In particular, some days before the disease declares itself there is a rise of temperature without any change whatever in the appearance or ways of the animal. MM. Roux and Nocard inoculated dogs with rabic virus, and as soon as the temperature began to rise, they collected the saliva and injected it into healthy dogs. In this way they proved that at least three days before the animal showed any alteration in his condition, the saliva contained rabic virus, and produced rabies in animals inoculated with it. They conclude that a dog may communicate the disease by biting or licking when he himself appears to be entirely free from it.

(166) Preventive Inoculation.

FRANK S. BILLINGS (*Times and Register*, August 30th, 1890) gives an account of the theory and practice of protective inoculation and vaccination, together with some of his own results. He is a disbeliever in the efficacy of Pasteur's antirabic treatment. He claims to have proved by his experiments that (1) a mitigated or non-fatal degree of virulence can be found in natural outbreaks; (2) this or any other degree of virulence can be retained indefinitely by his method of artificial cultivation; (3) the micro-organisms can be "fed up and down in

virulence" by changes in nutrition alone; (4) a direct proportional relation can be established between a certain dose of virus of known virulence in small animals, and a safe and preventive dose of the same virus in hogs. He appears to have obtained a variety of the swine-plague microbe which is non-virulent, but capable of creating immunity in pigs when injected even in single doses of 1 cubic centimètre. Of the method by which this result has been achieved the only explanation given is that the germ loses its virulence when cultivated in sterilised cattle urine.

(167) Experimental Studies upon the Consequences of Extirpation of the Cœliac Plexus.

PEIPER (*Zeitschr. f. klin. Medicin*, 1890, xvii, 6) has extirpated the cœliac plexus in nineteen rabbits; four succumbed to the operation. Eleven lived between three and four weeks, and four were killed at the end of two to four months. The necropsy showed no anomaly beyond wasting. The animals had a voracious appetite. The fæces were normal, so that it would appear that the cœliac plexus has no influence on the secretion of the intestine. In five animals there was for the first two or three days a little sugar in the urine. He does not think that extirpation of the plexus produces diabetes insipidus.

(168) Effects of Lightning Stroke.

MR. PHILIP JAMES (*Australasian Med. Gaz*, August, 1890) relates this case. The patient, a man, aged 43, had been in his hut on December 14th, 1889, during a violent thunderstorm, and was discovered by his friends speechless and in a state of partial unconsciousness eighteen hours afterwards. On examination the hair and whiskers on the right side of his head and face were scorched, and there was an erythematous blush on the right cheek and right side of his nose, and a thin red line to the right of the sternum and extending down to the pubes; the skin along this line afterwards desquamated. The hair of both legs was singed, and on the outer aspect of both heels the skin was burnt. His mind was clear, but he had no recollection of what had occurred, his speech was almost unintelligible, and he was much troubled by a copious secretion of viscid tenacious mucus in the mouth, which he experienced great difficulty in expelling. The plantar reflexes were active, the cremasteric and abdominal normal, as also were the knee-jerks; there was no clonus. There was no loss of muscular power in the arms, the tongue was protruded straight, he complained of much pain in the throat, and the act of deglutition was much impaired, fluids regurgitating freely through the nostrils. He was unable to pass water, but had some control over the anal sphincter. His legs showed no loss of power, but he had lost coordination and was unable to maintain his equilibrium. His pulse was 44, respirations 11 to 12, temperature normal. The pupils were natural, but he said the light hurt him, and some days later the left lid drooped a little and he said he saw double. Hearing, taste, and smell were natural. His improvement was uniform but slow; catheterism was necessary for some weeks, and in May he still had a jerky but not ataxic gait. His memory was defective and his conversation fatuous.

(169) Solitary Tubercle of the Spinal Cord.

C. A. HERTER (*Journal of Nervous and Mental Disease*, October, 1890) gives a summary of twenty-four cases which show that solitary tubercle of the spinal cord is a disease of youth and young adult life. It is much more common in males than females. The earliest symptoms are pain and weakness of one extremity. At first the symptoms are strictly unilateral, but soon may become bilateral. Anæsthesia is sometimes present in places, and later spasm appears, but generally speaking the symptoms of destruction are more marked than those of irritation. The symptoms attain a considerable degree of intensity in from three to eight weeks. It is very rare to find more than one tuberculous tumour in the same cord. There is generally evidence of tubercle in other parts of the body. Tuberculous tumours do not show a marked preference for any particular region of the cord, but the statement that they are commonest in the lumbar region is incorrect. Tuberculous meningitis of the cord is often present.

SURGERY.

(170) Partial Enterocele.

DR. RUDOLF TRJEBUKY, of Cracow (*Wien. med. Wochenschr.*, October 11th), reports a case of strangulated femoral hernia, in which it seems to have been clearly demonstrated during the operation of kelotomy that the hernial protrusion was of the form known as partial enterocele, or Richter's hernia. In this variety of strangulated rupture a small portion of the circumference of the intestine, and not, as in Littre's hernia, a pre-existent diverticulum, is constricted by the hernial orifice. Whilst the existence of Littre's or diverticular hernia has never been questioned, there is still much difference of opinion with regard to the variety to which Mr. Treves has given the name of Richter's hernia. Roser holds that it can never occur in an acute and free form, and many German surgeons are of opinion that such diverticular protrusion of intestinal wall is due to old adhesions between the surface of the intestine and the sac. In the case reported in this paper the nature of the hernia was diagnosed before operation. The patient, a woman, aged 60, suffered from well-marked and severe symptoms of acute strangulation, and presented a hard and fixed tumour of the size of a hazel nut in the left groin. The sac having been opened, a portion about the size of a kreutzer piece, of dark-coloured strangulated intestine, was exposed. The border of this was so closely constricted by the edges of the ring that much difficulty occurred in dividing the stricture. The whole loop of intestine was then dragged downwards and exposed, and the nature of the hernia proved beyond doubt, the strangulated portion having consisted of an artificial diverticulum from the convex surface of the loop, which presented a marked contrast in colour to the rest of the exposed intestinal wall, from which it was cut off by a deeply indented ring of a dark-blue colour, which had been caused by the constriction. The diverticulum speedily disappeared after the release of the strangulated intestine. No trace of adhesions could be found between the affected portion of intestine and the sac or ring. The symptoms of strangulation were much more acute and severe in this case than those usually presented in cases of Richter's hernia, but exceptions to the rule, that the symptoms are less urgent in this form of strangulation, have been recorded, and, as was shown by Scarpa, when two-thirds of the circumference of a portion of intestine is ligatured, the passage of even a small stream of fluid is completely obstructed. At the conclusion of the paper, reference was made to a second case treated by Mikulicz. These carefully and fully recorded instances of a rare lesion form an important addition to the mass of clinical material by means of which Mr. Treves, in this country, has been enabled

to establish beyond doubt the occasional occurrence of strangulation involving a portion only of the circumference of the bowel.

(171) A New Method of Resection of the Tarsus.

PROFESSOR A. OBALINSKI, of Cracow, describes (*Centralbl. f. Chir.*, October 25th, 1890), a new method of incision for resection of diseased portions of the tarsus. This, it is acknowledged, is an addition to a very long list of operations that have been devised and practised for the same object, but most of these, the author states, deal only with the large bones of the ankle, and do not permit of a thorough examination of the smaller bones of the tarsus, and of the metatarsal bones. The methods of Bardenheuer and Link certainly enable the surgeon to expose the bones in the anterior portion of the foot, but at the cost of free division of the tendons and nerves on the dorsum and at the consequent risk of impaired innervation and mobility. The author has endeavoured to devise an incision so situated in the long axis of the foot as to favour free exposure of the smaller joints, and at the same time to touch as few tendons and nerves as possible, and to preserve the external form of the extremity. After some consideration he came to the conclusion that the desired object could be best attained by an incision involving the whole thickness of the foot, carried between the third and fourth toes. In this way the surgeon can take the most direct line between the smaller tarsal bones to the astragalus and os calcis. The incision severs only the extensor and flexor tendons of the two outer toes and the tendon of the peroneus longus, and the only nerve of any importance that is divided is the external plantar. The following are the steps of Obalinski's operation: The two outer toes being taken by the surgeon and the three inner toes by his assistant on the right foot, and *vice versâ* on the left, an amputating knife of medium size is carried between the third and fourth metatarsal bones, and then between the cuboid on the outer side and the third cuneiform and scaphoid on the inner side as far as the astragalus and os calcis. The middle tarsal joint is now opened up and the lateral halves of the slit foot are dragged widely apart almost to a right angle to its long axis on either side. After the removal of any diseased portions of bone, other parts of the foot are exposed to view, so that all the bones of the tarsus and metatarsus may be seen and touched, and a thorough examination be made for deposits of tubercle. After the bleeding has been arrested the cavity of the wound is stuffed with iodoform gauze, and the two portions of the foot are brought together and kept in position by sutures.

(172) Hydatid Cyst of the Spleen.

IN the *Revue de Chirurgie*, October 10th, 1890, p. 810, Dr. Chaintre gives an account of one of those rare cases of cyst of the spleen which was operated upon by Professor Ollier. The patient was a man, aged 27, who had suffered from neuralgic pains in the region of the spleen for three years. These were thought to have been intercostal neuralgia, and were treated with iodide of potassium. Afterwards a hard mass was felt in the left hypochondrium, which was dull on percussion, and moved with respiration. This tumour gradually increased, and began to fluctuate, but without giving the "hydatid thrill." There was no increase in the number of white corpuscles. The diagnosis lay between a hydatid cyst and a simple hypertrophy of the spleen, but all doubt was set at rest by the results of a puncture. This procedure was immediately followed by a violent outbreak of urticaria, with pain and high temperature. Later on Professor Ollier performed laparotomy, and exposed a tumour which was diagnosed as being the spleen. After many efforts a trocar at last drew off a quantity of purulent fluid, full of hooklets. The spleen was sutured to the abdominal wall, the trocar being left in the cyst. The patient made a good recovery, and the wound closed.

(173) Hydatid Cyst of the Mammary Gland.

M. DUBRUEIL, of Montpellier (*Revue de Chirurgie*, May, 1890) read notes of a case before the Société de Chirurgie, Paris. A woman, aged 44, suffered for two years from an indolent tumour of the breast. Two months before observation the swelling began to grow very rapidly, and became painful. The superjacent skin was healthy. An exploratory incision was made, and a purulent fluid mixed with hydatid membrane escaped. The cavity was emptied completely and washed out with boracic acid and with a solution of nitrate of silver. Two months later the breast had completely healed. M. Dubrueil considers that this method of treatment is the best, as the scar which remains is small. When the entire sac is dissected out, or rather when that feat is attempted, the cicatrix which forms after cure is extensive.

(174) Autoplasty for Large Ulcers of the Leg.

AT a sitting of the Academy of Medicine of Paris held on October 14th, M. Berger presented (*Progrès Médical*, October 18th) two patients in whom he had treated extensive ulceration of the legs by a modified form of Italian autoplasty with complete success. The first case was one of circular ulcer, probably of syphilitic origin, with retraction of the subjacent tissues to such an extent as to have caused annular constriction of the leg, and with trophic disturbances of the skin, œdema of the foot, tendinous contractions, and complete immobility of the articulations of the foot and ankle. As a result of four operations performed in the course of eighteen months, the ulcer was quite closed, and the whole of the circumference of the limb covered with normal skin. This was effected by taking four flaps from the thighs and the opposite leg. The average length of the interval before severing the pedicle was twenty-one days. The trophic troubles disappeared, and the patient regained his capacity for free and normal movements. The second patient suffered from intractable ulcers of both legs situated in the midst of extensive scars from burn. One of these ulcers was covered by a flap taken from the corresponding thigh, the leg being kept in the semi-flexed position until the pedicle was divided. The result, it is stated, could not have been better. The aim of M. Berger in this treatment by autoplasty is not only to obtain a firm scar, but also to furnish the limb with normal skin together with subjacent cellular tissue. At the same time further cicatricial retraction is prevented by the excision not only of the ulcer itself, but also of the deep-seated parts on which it rests. Neither Reverdin's grafts nor the larger grafts of Thiersch give a result of this kind. It is a condition of success that the limb from which the flaps are taken should be quite sound, and, therefore, this treatment is not adapted to cases of varicose ulcer.

(175) Nephrectomy of one half of a Horseshoe Kidney.

SOCIN (Bruns: *Beitr. z. klin. Chir.*, Bd. iv, Heft I) records a case of a woman aged 47, who had suffered for thirty years with one of her kidneys; pain, colic, and pyuria had all attacked her in turn. The swelling at the time of operation was as large as one's

head. An incision was made on the outer border of the rectus, and the tumour was found with the colon in front of it and to its inner side. It was punctured, and after the fluid was let out the edges of the opening were stitched to the abdominal incision. About a week later, as it was evident that the opposite kidney was healthy, and at the patient's urgent request, abdominal nephrectomy was performed. During the course of the operation the kidney was found to be attached across the middle line to its fellow, and had to be severed from it with the cautery. The patient made a good recovery. Socin draws attention to the fact that this is the only recorded instance in which a successful result has been obtained in such a case.

(176) Method of Diagnosing Rupture of Bladder.

DR. W. W. KEEN (*Annals of Surgery*, July, 1890, vol. xii, No. 1, p. 35) suggests the plan of using filtered air or hydrogen such as Senn employs in his experiments on the intestine. If no rupture is present a tense tympanitic tumour will appear in the lower part of the abdomen; whilst, if the bladder is ruptured, the air will escape into the cavity of the peritoneum, showing that an operation is called for.

(177) Calculus in the Urachus.

DR. DE GENNARO (*Il Morgagni*, No. 33, 1890) describes the case of a patient who was subject for several days to a muco-purulent discharge from the umbilicus. A fistulous track was detected, and from it a calculus, the size of a broad bean, was discharged one morning, and the patient's troubles at once ceased. Three days before its discharge, a very marked attack of vesical spasm occurred. The calculus was due to ammoniacal fermentation of the stagnant urine in a dilated part of the patent urachus, and subsequent development of phosphates. Dr. De Gennaro does not believe that the calculus was driven out of the bladder during the spasm into the open urachus.

(178) Sterilisation of Rubber Catheters.

DR. ALAPY (*Annales des Maladies des Organes Génito-urinaires*, July, 1890) describes a new method of effecting the sterilisation of these instruments, which possesses, he asserts, the merit of being very effective, easy to carry out, and harmless to the instruments. After drawing attention to the effects of various antiseptics, such as carbolic acid, sublimate, etc., and heat as ordinarily applied, he goes on to describe his own plan, which practically consists in wrapping up the instruments, not more than three or four in a packet, in ordinary blotting paper, the ends of which are just twisted up. These packets are then placed in glass tubes, the mouths of which are sealed with a plug of cotton wool. The glass tubes are exposed for half an hour to ordinary steam, that is, to a temperature of 100° C. The packets of blotting paper are then removed, and kept in a drawer or box till they are required for use. They remain sterilised for any length of time provided the paper is not opened, as is shown by the fact that they are incapable of infecting either sterilised bouillon or sterilised urine.

(197) Inflammation of Breast Simulating Cancer.

DR. G. PHOCAS (*Gazette des Hôpitaux*, August 19th, 1890) describes a form of diffuse inflammation of the breast which has been observed by himself and by several distinguished Parisian surgeons. It occurs about the menopause. Its cause may be chronic irritation from clothing, overwork, etc. A tumour forms, independent of lactation, and occupies the greater part of the glandular tissue of the breast. It is bulky, often hemispherical, firm and uniform in consistence. Its surface is irregular. From its periphery proceed prolongations of the gland involved in the disease just as in cancer. In two cases at least the tumour spread into the nipple. The skin is often free, but sometimes adherent. The tumour has never been found to adhere to the pectoralis major. The patient complains of pricking sensations and slight pain in the breast. The tumour is usually tender to pressure. Most important is it to bear in mind that the axillary glands may be enlarged. A characteristic feature of this form of inflammation of the breast is its irregular course. Instead of increasing steadily, whether slowly or rapidly, it sometimes reaches a great size in a few days, and then slowly diminishes in volume, or else it grows smaller all of a sudden, and increases again after a short time, taking a long while to resume its former bulk. The resemblance to cancer is very great, and the tumour mostly looks like an advanced scirrhus. It diminishes in volume after a few weeks' treatment. Dr. Phocas, Professor Verneuil, and others prefer free pulverisations with carbolic acid.

MIDWIFERY AND DISEASES OF WOMEN.

180) Nephritis with Impaired Vision in Pregnancy.

DR. LOMER (*Centralbl. f. Gynäk.*, No. 43, 1890) read before a recent meeting of the Hamburg Gynæcological Society two cases of this complication which occurred in the same house. A primipara, aged 33, suffered for four weeks from œdema and gradually increasing impairment of vision. For twenty-four hours the movements of the child had ceased, and free flooding, with atypical cramp-like pains, set in. Dr. Lomer found the patient very anæmic; the pulse could hardly be felt in the œdematous arms, and the patient was almost blind. The uterus was very tense, the os about the size of a florin; the edge of the placenta could be felt within it. The head presented; the fœtus was clearly dead. The crampy pains were severe, and accompanied by flooding. Turning was performed under chloroform; it proved difficult owing to the tenseness of the uterine walls. There were large clots in the uterus; an eight months' dead fœtus was removed. The placenta, removed by the hand, was full of white infarcts, and was cupola-shaped in the centre, owing to a large area of hæmorrhage. After the uterus had been thus emptied the pulse could again be felt. The urine coagulated completely on boiling, and contained abundant granular and hyaline casts. The œdema suddenly disappeared during the outbreak of a sweat rash in childbed. The albuminuria remained longer, and the impairment of vision was the last to disappear; indeed, it had not entirely gone when the case was reported. On the same day that this case first came under Dr. Lomer's notice, a multipara, living in the same house, consulted him. She was in the eighth month of pregnancy, and complained of intense headache, with defective sight. There was no œdema, but the urine was loaded with albumen, and full of finely granular and hyaline casts. In spite of milk diet and rest in bed, the headache and impairment of sight increased. Dr. Lomer, therefore, induced premature labour. This was done by Schrader's method recently described before the society, that is to say, the abdomen was fomented for five minutes alternately with hot and ice-cold water. In two hours pains came on; six hours later a living child was born. The placenta was healthy. As the uterus emptied, the

headache diminished, but was bad enough to keep the patient from sleeping for several nights. The albuminuria disappeared on the fifth day after delivery. The defective vision remained longest, and was still marked when the patient left her bed at the end of a fortnight. The child died of atrophy at the end of a week. Dr. Herschel took both patients under his care for their sight. In the first case there was no retinitis. The disturbance was due to uræmia, and paralysis of accommodation, due to the extreme general debility, was present. The second was a marked case of retinitis albuminurica. This is very rare in pregnancy; only three cases have hitherto been observed by Dr. Herschel. The prognosis is altogether more favourable in pregnancy than under other circumstances.

(181) Periodical Hæmoptysis after Removal of Both Ovaries.

Dr. Paul Raymond (*Gazette des Hôpitaux*, October 14th, 1890, p. 1096) describes a case in which M. Pozzi had, in 1888, removed both ovaries from a woman then aged 25. The patient remained three months in hospital, and no uterine "show" has ever been seen since. Every month, however, a flow of white fluid appears and lasts for two or three days. The patient suffers from headache, without lumbar or abdominal pains, and suddenly vertigo and flushing of the cheeks come on; these symptoms are followed by hæmoptysis. The spitting of blood is not preceded by any feeling of heat or weight in the chest. Nausea without hæmatemesis sometimes complicates this abnormal menstrual period. The hæmoptysis occurs four or five times daily, and lasts two or three days, sometimes waking up the patient at night. Several ounces of blood are thus lost without sensible detriment to health. The pulmonary hæmorrhage has continued monthly since January, 1889. There is evidence of incipient phthisis at the right apex. This case, says Dr. Raymond, shows that when the sanguineous "show" ceases after castration, the congestive tendency and other phenomena of menstruation may continue. Vicarious hæmorrhage may occur, and it is easy to understand how a new tuberculous deposit is liable under these circumstances to become the seat of bleeding. The author refers to a case of Graves's disease following removal of the ovaries, reported by Dr. Mathieu in the same journal (1890, p. 643). Uterine hæmorrhage was never seen after the operation, but the patient became subject to the most distressing flushings of the face and great nervous agitation. The thyroid gland swells; in fact, the patient is in the incipient stage of Graves's disease, though the symptoms seem to have become "disciplined," so as to be marked only at the monthly period. These cases show that a patient after removal of her ovaries is in the state of a woman with amenorrhœa. True menstruation ceases, but the menstrual period may remain, reacting on the whole organism and manifesting itself by hæmorrhagic, vasomotor, nervous, or other symptoms, which by their regular recurrence alone may entail serious consequences.

(182) Effects of Castration on Women.

Dr. F. Keppler, of Venice (*Annales de Gynécol.*, October, 1890), read a paper on this subject at the Berlin Congress. His observations were based on after-histories of 46 operations where he had totally removed the ovaries. Uterine hæmorrhage never followed the removal of the appendages for salpingitis or other inflammatory process. The conjugate diameter gradually became shorter, the more palpably when the subject was young. The uterus steadily atrophied "from 8 to 2 centimètres in the space of ten years." The vagina became shorter and straighter, its mucous membrane paler. The labia majora grew thinner. The breasts grew smaller, as in the male. Pigmentation of the nipples and areola completely disappeared, as well as pathological pigmentary products. The skin itself grew remarkably white. The tendency to corpulence, mentioned by other writers, was not observed, nor were there any changes in the hair or voice. The sexual appetite remained absolutely intact when the operation was performed for tubo-ovarian diseases, and all the more marked the nearer the operation had been performed to the commencement of menstruation. The operation proved no obstacle to marriage; in three cases the patients married after castration, and lived happily for several years. "Marriage with a castrated woman is the ideal type of Malthusian marriage; it is the only way of practising Malthusianism without compromising the health and happiness of the parties concerned." No kind of neurosis was manifested in women castrated when young on account of inflammatory affections. On the other hand, this complication was frequently observed in women operated upon later in life for uterine fibromata. Hæmorrhages associated with fibromata of the uterus were favourably influenced by the operation. The artificial menopause, however, in no case occurred immediately. Women already arrived at a mature age and operated upon for fibromata of the uterus completely lost all sexual desire.

(183) Rupture of Fœtal Cysts into the Bladder.

Professor Winckel (*Sammlung klin. Vorträge*, No. 3, New Series) describes a case of this kind which had been closely observed. A patient suffered from severe pains in the bladder and dysuria; frequently tenesmus and difficult defæcation increased her misery. Six weeks previously menstruation had been suspended for seven months. The temperature occasionally rose. A tumour, "double the size of a man's fist," pushed the uterus to the left and backwards, pressing on its anterior surface. At first this tumour felt like a myoma. The bladder was intensely tender when pressed from the vaginal side, and a hard substance could be felt inside it when the sound was introduced. Hence, very naturally, calculus was diagnosed. The urethra being dilated, dressing forceps were introduced, and the supposed stone was extracted; it was a left tibia. The upper part of that bone, deeply incrusted, had projected into the bladder, the shaft lying in an abnormal cavity. On dilating that cavity with the finger, 120 bones were extracted; they formed an incomplete skeleton. One ilium and several smaller bones were missing; it was uncertain whether they were broken into unrecognisable fragments by the forceps, or whether they had been passed in a motion or remained, covered by granulations, in the fœtal sac. The bones first removed were encrusted with phosphates. The remainder were of a brownish colour, and smelt of fæces. The cavity was thoroughly washed out, and the dilated urethra had to be partly repaired by sutures. A few days later the patient still suffered from very frequent slimy motions, and at length passed small pieces of cranial bones through the urethra. Complete recovery ensued. The pelvis was then examined; the uterus lay almost in the middle, the left appendages appeared healthy. To the right of the uterus, the broad ligament was represented by a slightly tender swelling about the size of a small hen's egg. Behind this swelling the ovary could plainly be distinguished. Professor Winckel gives reasons for believing this case to represent typically an intraligamentary tubal

pregnancy; the presence of the ovary behind the old sac was characteristic. At so late a stage radical operative measures are hardly indicated. The treatment pursued in this instance comes nearest to a natural method of cure. Only when it is evident that there are some bones so big that they cannot be extracted through the urethra without permanent damage to that canal should vaginal cystotomy be performed.

PHARMACOLOGY AND THERAPEUTICS.

(184) Methyl-violet as an Antiseptic.

METHYL-VIOLET is recommended as an antiseptic agent by Professor Stilling (abstract in *Therapeutische Monatshefte*, 1890, p. 294). He considers also that it prevents and stops the formation of pus, and it is sold by Merck, of Darmstadt, under the name "pyoktaninum cæruleum"; this is, however, the same as ordinary pure methyl-violet, such as is used for staining micro-organisms. Pathogenic and other bacteria have, as is well known, a great affinity for aniline colours, and on being exposed to the action of the dyes are soon killed. A solution of 1 per 1,000 methyl-violet applied to the conjunctiva makes the membrane and the iris and sclerotic (but not the actual cornea), a blue colour, which disappears the next day. Solid methyl-violet applied in the same way causes superficial erosions of the cornea. Methyl-violet is practically non-poisonous; rabbits eat grammes of it without suffering. Very large doses introduced into the peritoneal cavity cause death. Methyl-violet solutions (1 per 1,000) are recommended by Stilling for eye affections; in corneal ulcers, blepharitis, conjunctivitis, phlyctænulæ, they act very beneficially. In deeper inflammations of the eye, keratitis parenchymatosa and serous iritis, good results were also obtained. Stilling says that methyl-violet sterilises the pus of suppurating wounds and ulcers; he recommends injections for empyema, purulent peritonitis, typhoid, and dysentery. Surgical instruments may be washed with a 1 in 10,000 or 20,000 solution, and the wound after operation treated with a 1 in 2,000 or 5,000 solution. Methyl-violet gauze, wool, and silk are also prepared. Garré and Troje (*Münch. med. Wochenschrift*, No. 25, 1890) find methyl-violet is not poisonous when used in the treatment of disease. It has, however, no specific antipyogenous action. Troje's experiments tend to show that a solution of 1 in 1,000 hinders the development of, but does not in twelve hours with certainty kill, the cocci found in pus. Fessler, *(Ibid.)* says he obtained excellent results in head wounds, contused and incised, by the use of a 1 per 1,000 solution. The remedy reduces the swelling and redness around suppurating head wounds—a result explicable by its bacteria-killing powers. M. Bresgen (*Therap. Monatshefte*, 1890, Nos. 7 and 10) speaks highly of the value of methyl-violet in nasal affections. It is applied till the mucous membrane in the locality which is being treated is of a deep blue colour. It is very beneficial in local suppurating areas in the nose, and as an application after cauterising with the galvano-cautery or chromic acid. After cauterisation, it greatly lessens the usual subsequent discomfort and discharge; there is, as a rule, less bleeding. After the application of the remedy in solution from 0.2 per cent. to 0.4 per cent., the nostril is plugged with methyl-violet wool for two hours. Methyl-violet, in nose affections, according to Bresgen, diminishes inflammation and suppuration, and relieves pain.

(185) Therapeutic Effects of Clay.

IN a recent report to the Kïev Medical Society, Professor A. S. Shklarevsky, of Odessa (*Voënno-Meditzinsky Jürnal*, No. 7, 1890, p. 87), gives his experience of the so-called "compound clays" as therapeutic agents. He employed two varieties of the substance, dug up in the vicinity of the town. Both kinds had an almost identical composition, the constituents being alumina, silica, iron (in rather large proportion), calcium, magnesium, potassium, sodium, and some organic substance which did not yield any volatile or ichthyol-like bodies on distillation. The author tried the clays in about 300 cases of various affections, in nine-tenths of which the patients belonged to the working class. Externally the clay was used in the form of an ointment of cream-like consistence, prepared by combining the clay with diluted table vinegar (1 part of the latter to 2 parts of water). The application of this salve gave the best results in cases of chronic articular rheumatism, eczema (especially the acute professional eczema of laundresses, and chronic eczema of nervous origin), lupus erythematosus, chronic ulcers of the leg (more especially those of an eczematous character). Internally the substances were administered in doses of from 10 to 30 grains two or three times a day, in the form of pills or powders (with milk or water). They proved most useful in cardialgia, intractable vomiting, dyspepsia (especially in anæmic or chlorotic women, with a tendency to diarrhœa and colic), peripheral neuritis, and neuralgia. On the other hand, both varieties of the clay were found totally useless in acute rheumatism (in which the application even aggravated the articular pain), psoriasis, chronic urticaria, pityriasis versicolor, and tricophytiasis capitis. In conclusion, the author points out that being an almost inodorous and tasteless substance clay is a good substitute for sugar or gum as an excipient for various pulverised medicaments. It may be used, further, as a mass for pills or lozenges, and as a substitute for sugar in the preparation of *elæosacchara* (compounds of volatile oils and sugar). In the latter case the advantage is said to consist in the substance being insoluble in digestive juices and chemically stable. Finally, when sterilised by exposure to heat (150° or 200° C.) clay may be used as a very cheap and good aseptic material for surgical purposes.

(186) Diet in Chronic Bright's Disease.

DR. NIKOLAS S. ZASIADKO, of St. Petersburg (*Vratch*, No. 39, 1890, p. 889) has carried out a series of comparative clinical experiments on ten patients suffering from chronic nephritis, his object being to elucidate the influence of a vegetable, animal, and mixed dietary on the course of the disease. In each instance the experiment lasted thirty days, during the first ten of which the patient was kept on a vegetable diet, during the second ten on an animal one (with the addition of some bread), and during the third period on a mixed diet. It was found that (1) under the influence of vegetable food, the daily amount of albumen in the urine markedly decreased; the arterial tension sank, dropsy considerably increased; the pulse became slower, weaker, and more easily compressible; the appetite was gradually lost; the general state grew worse, the patient becoming weaker, apathetic, etc. (2) Under the influence of animal food, the daily quantity of albumen in the urine markedly increased; the arterial tension rose; œdematous swellings were diminished; the pulse became more frequent and fuller; the body weight decreased *pari passu* with the disappearance of dropsy; the daily amount of the urine, the proportion of its solid constituents, and specific gravity in-

creased; the general state improved, the patient growing stronger, more cheerful, etc. (3) A mixed diet stood midway in its effects, but came nearer to the animal one in regard to its influence on albuminuria. (4) The proportion of albumen in the urine *per se* affords no criterion for determining the gravity of the renal lesion. The patient's dietary should also be always taken into consideration, as the ingestion of an abundant proteid food raises the said proportion by causing a "dietetic albuminuria," which quickly disappears on decreasing the quantity of food proteids. (5) In view of the fact that chronic Bright's disease (*a*) consists in a general affection of the vascular system and not of the kidney alone; and (*b*) is accompanied by a profound alteration of the blood, characterised by an increased proportion of water and a decreased proportion of proteids, hæmoglobin, and morphological elements, rational treatment should consist in raising the patient's general nutrition by means of a liberal diet abounding in proteids. Such diet does not give rise either to any renal irritation (hæmaturia, hæmoglobinuria, exacerbation of the renal process), or to uræmia. (6) The best dietary for chronic Bright's disease is a mixed one. In interstitial nephritis, accompanied by general weakness, animal should predominate over vegetable food; in parenchymatous nephritis with profuse albuminuria, vegetable food with milk should be in relative excess. (7) Roasted or cooked Italian chestnuts markedly diminish the proportion of albumen in the urine, owing to their containing tannic acid.

(187) Aristol in Venereal Disease.

V. FISICHELLA reports (*Riforma Medica*, October 16th, 1890) eight cases of venereal disease in which aristol was tried by Professor P. Ferrari, Director of the R. Istituto Dermo Sifilopatico of Catania. The drug was used in the form of powder, which was sprinkled over sores, etc.; no internal treatment was employed. In the first case (a youth aged 19, with syphilitic ulcers at the sides of the frænum, induration behind the glans, paraphimosis, and enlarged glands in each groin) there was some improvement in the ulcers in three days, and in a fortnight they were healed; the induration, however, did not disappear till the twenty-third day. In the second case (a man, aged 24, with a syphilitic ulcer of the meatus, which showed a decided tendency to become phagedænic) aristol was applied twice a day, but after a fortnight it had to be stopped, as, so far from proving beneficial, it seemed to increase the tendency of the ulcer to spread. In the third case (a lad, aged 19, with an ulcerating bubo in the left groin) the patient insisted on leaving the hospital before the treatment was concluded. On the eighth day, the ulcer had assumed a healthier aspect, and on the eleventh (the day the patient left) it was almost healed. In the fourth case (a man, aged 21, with seventeen ulcers in the balano-preputial sulcus and on the mucous surface of the prepuce, paraphimosis, œdematous infiltration of the penis, etc.), aristol did good, but was very slow in its action, though it was applied thrice daily. In the fifth (a woman, aged 30, with diffuse erythematous syphilides of the skin, and papules about the anus and vulva), aristol proved utterly useless. In the sixth (a woman, aged 38, with an enormous ulcer in the left hip, originating in the breaking down of a gumma), aristol had again to be abandoned as useless. In the seventh case (a woman, aged 23, with a primary sore of the fourchette), a cure was effected in twenty-four days. In the eighth (a man, aged 21, with a hard chancre), the ulcer was healed in twenty-five days. Fisichella concludes that aristol has a certain effect in venereal ulcers, but it acts very slowly. Its only advantage over iodoform is that it has no smell, but it is inferior to the latter in therapeutic activity. Aristol, in short, "is certainly not destined to be registered in the pharmacopœia as a useful remedy in syphilitic affections."

(188) Orexin: a New Stomachic.

HYDROCHLORATE of orexin was recommended by Penzoldt (*Therap. Monatshefte*, February, 1890) for improving the appetite. It was found that small doses in rabbits produce slight poisonous symptoms, such as paresis. In 72 per cent. of Penzoldt's cases the appetite was distinctly increased; in 14 per cent. the action was doubtful; in 14 per cent. there was no appreciable effect. Müller (*Therap. Monatshefte*, June, 1890) gave the remedy in the same formula as Penzoldt, namely, 30 grains of hydrochlorate of orexin with extract of gentian and powdered althæa root, to make twenty pills, each pill containing a grain and a half. Three pills were given on the first day, four on the second, five on the third. In 5 cases—2 of phthisis, 1 of diabetes, and 2 with dyspeptic symptoms only—the remedy was given, but with no appreciable effect. As Martins (*Deutsch. med. Wochen.*, 1890, No. 20) says the investigation of the effect of a stomachic is surrounded with difficulties, as the mere suggestion of a remedy to a patient may have some effect on the appetite. He, therefore, in some cases gave pills without orexin to compare the results with those in patients who had been taking it. Of 29 cases in which the remedy was given, 5 only had an increase of appetite; the remaining 24 were unaffected. In 5 cases pills were given without the orexin, and appetite was increased. Umpfenbach (*Therap. Monatshefte*, 1890, p. 496) has had, on the whole, favourable results. In 30 cases the appetite was improved 19 times; in one patient hunger was produced, but faintness and nausea supervened in from ten to eleven hours; these symptoms also followed a second dose. In 2 anæmic patients, the drug increased the appetite in one only; but it was useful in a convalescent from influenza and in a man with gastric catarrh. Orexin was given to 25 insane patients with somewhat varying results. It is best given in pill form, since it has a pungent and bitter taste when given in liquid. In one case vomiting occurred twice. Penzoldt has noticed a burning sensation in the œsophagus and Podgorski singing in the ears as a result of taking orexin.

(189) Eclampsia Nutans cured by Massage.

DR. ZEFERINO MEIRELLES, of Quissaman, relates (*O Brazil-Medico*, No. 22, 1890) a case of eclampsia nutans, in which he claims to have effected a complete and permanent cure by an impromptu method of what he calls "cervico-dorsal massage." The patient was a boy between 4 and 5 years of age, who a few days previously had begun to suffer from well-marked "salaam convulsions." The nodding movements were clonic in character, the head being bent forward and slightly rotated to the right, and were continuous, following each other with extreme rapidity, except during sleep, when they entirely ceased. It occurred to Dr. Meirelles that irritation along the spine might have some effect in "re-establishing the equilibrium of the circulation in the centre of origin of the motor nerve whose dynamic functions were affected." He therefore rubbed the spine with his knuckles "from above downwards, and *vice versâ* with the greatest rapidity and some amount of force, from the cervical to the middle of the lumbar region, making greater pressure in the cervical and dorsal regions than elsewhere." After

ittle more than a minute of this massage, the movements of the head completely stopped. They soon began again, however, but a repetition of the massage once more checked them, and the little patient could not only keep his head still, but could move it in any direction in obedience to the commands of Dr. Meirelles. He was kept under observation in the consulting room for two hours, during which there was no recurrence of the movements. Dr. Meirelles continued to hear of the little patient for two months afterwards, and "although no further treatment of any kind, either internal or external, was ordered, the cure was radical." Dr. Meirelles acknowledges that this is the first, and so far the only, case of eclampsia nutans that has come under his observation.

(190) Rhus Toxicodendron.

DR. AULDE (*Med. and Surg. Reporter*, 1890) recommends tincture of rhus toxicodendron as a valuable remedy in chronic rheumatism of joints, muscles, and nerves. He also gives it internally in hæmorrhoids, varicose veins, chronic cystitis, and in chronic skin diseases. He explains that the active principle (toxicodendric acid) is very volatile, and that in consequence most of the preparations are spoiled in the making, and are therefore worthless. A tincture is made from 50 parts of the fresh leaves to 100 parts of alcohol, and of this half a drop is given thrice daily.

(191) Arsenite of Copper in Intestinal Affections.

DR. JOHN AULDE has now published several papers on the use of arsenite of copper in intestinal affections (*Therap. Gazette*, July, 1889; *Med. News*, November, 1889), and in a paper read before the Pennsylvania State Medical Society (June, 1890) he sums up the further experience obtained by himself and by collective investigation in America. In all, 694 cases are reported by 34 observers. The indications for the exhibition of arsenite of copper practically cover all disorders of the stomach and bowels in the early stages, before the inflammatory action has extended to the adjacent or contiguous structures. It was given especially in cholera morbus, cholera infantum, diarrhœa, dysentery, diarrhœa of phthisis, in typhoid fever, and in chlorosis. The results in all seem to be extremely favourable. A tablet containing $\frac{1}{100}$ grain is dissolved in 4 to 6 ounces of water, and the patient takes a teaspoonful of the solution every ten minutes for the first hour, and then continues it at longer intervals; children take half this amount, and infants a few drops. Dr. Aulde insists that repeated doses, taken at short intervals, are of the greatest importance for successful treatment. In chlorosis $\frac{1}{12}$ grain, taken thrice daily, gave excellent results. In cases of diarrhœa, where it is undesirable to administer much water, the $\frac{1}{100}$ grain should be dissolved in a small quantity of fluid and proportionately smaller doses given.

BACTERIOLOGY.

(192) The Effect of Sunlight on the Bacillus of Typhoid.

DR. TH. JANOWSKI (*Centralbl. f. Bakt. u. Parasitenk.*, Bd. viii, Nos. 6, 7, 8, 9, 1890) after referring to the controversy that raged at one time as to whether it was heat or light that acted injuriously on bacteria exposed to the sun's rays, gives a summary of the work and the conditions under which it was carried on by Downes and Blunt, Tyndall, Jamieson, Duclaux, Arloing, Roux, Gaillard, and Uffelmann, all of whom made contributions to the subject, but in all of whose papers were many points that needed to be explained or confirmed. The earlier workers were placed under the disadvantage of having no pure cultivations at their command, whilst even the more recent experimenters had to use methods which could not be considered by any means perfect, in addition to which their knowledge of the formation of spores and the effects of various reagents upon them was very inadequate indeed. Dr. Janowski's experiments were undertaken to prove that it is not the influence of oxidation of the food material by light that causes the death of the typhoid organism, but that this is due to a direct action of the chemical rays of light upon the protoplasm of the organism, which renders it incapable of further development. He first exposed to the action of light on a cold day a gelatine tube in which typhoid bacilli had been inseminated, a second tube being wrapped up first in black and then in white paper. In the tube protected from the light growth took place in three days, whilst in those exposed to the light it did not commence for five days. Similar results were obtained in double Pasteur tubes, one limb of which was protected, the other exposed to the light. Diffuse light, he finds, is not so active as direct sunlight, the latter of which kills typhoid bacilli in from four to seven hours. That the action is not due to any change in the food medium, nor to the rise of temperature beyond that at which the organism can develop luxuriantly, was proved by an elaborate series of experiments in which the temperature never rose beyond 40.5° C., and was usually between 30° and 40° C. Instead of analysing the rays of light by means of a prism, Janowski used solutions of alum, bichromate of potash, bismarck brown, fuchsin, methyl blue, gentian violet, etc. He found that whilst the yellow and brown solutions kept back the chemical rays almost as well as wrapping up the tubes with paper, the other fluids were little more efficacious than distilled water or alum solution in preventing the injurious action of light on the bacilli. He comes to the conclusion that the hurtful action of both diffuse light and direct sunlight is due chiefly to the chemical rays of the spectrum, and he reiterates Duclaux's opinion that in our struggles with pathogenic bacteria sunlight and fresh air, in the hands of the hygienist, are most powerful and deadly weapons with which to combat their activity.

(193) Hog Cholera.

DR. E. A. V. SCHWEINITZ (*Medical News*, September 6th, 1890) gives the results of a preliminary study of the ptomaines from the culture liquids of the hog cholera germ. Cultures in acid bouillon, at the end of three weeks giving an acid reaction, contained a heavy crystalline precipitate from which he was able to isolate cadaverine, a primary amine which he has not yet identified, and a salt of an alkaloidal character. The platinum salt obtained by precipitation appears to have the composition $C_{14}H_{34}N_2PtCl_6$. He was also able to obtain an albumose which, when dried over sulphuric acid *in vacuo*, crystallised out in white translucent plates. This is not a virulent poison, though when injected it gives rise to local symptoms, and to a high temperature continued for a few days. He also separated from culture liquids of beef infusion, with peptone and 2 per cent. of blood serum, an albumose having chemical properties similar to those described by Brieger. The author states that by inoculating guinea pigs with certain chemical compounds that he has prepared, the animals have been rendered insusceptible to hog cholera.

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